

materials of group II are coated with a silicon oxide layer as are the combustible materials of Group I. Applicant asserts that the modes of operation are not different as both contain claims in which a silicon oxide layer is formed over a combustible substrate.

Groups II and III are related because, contrary to examiner's assertion, they are disclosed as capable of use together and do not have different modes of operation. Group II combines sodium silicate solution with wood particles and polymerizes the combination including compressing under heat and pressure. Group III contacts porous combustible material under conditions that impregnate pores with silicate solution and polymerizes the silicate solution.

The combination of sodium silicate solution with wood particles (Group II claims 14-21) is a means for contacting porous combustible material (claim 22), combustible materials (claim 23) and cellulosic material (claim 24) with silicate solution (Group III) and the combination of sodium silicate solution with wood particles (Group II claims 14-21) is included within the meaning of porous combustible material, combustible material and cellulosic material of claims 22-24 (Group III).

The compressing under heat and pressure to bond sodium silicate solution and components into the desired board (Group II, claims 15 and 18), is also included within the description of claim 22 (Group III) which contacts material with a sodium silicate solution under conditions so as to impregnate pores within the combustible material. Combining with sodium silicate solution, and compressing under heat and pressure (Group II) is a means for contacting materials with sodium

silicate solution and is one of the conditions that results in impregnating pores within combustible material (Group III).

The polymerizing described in claims 14-21 (Group II) includes concurrent heat and pressure (Group II, claim 15, 18). But also includes heat treating to cause soluble silicate to become less soluble in water (Group III, claim 22), polymerizing soluble silicate to form a water insoluble silicate based substance including the step of dehydrating and heat treating the resulting silicate (Group III, claim 23), and applying energy to said material under sufficient conditions to cause the alkali metal silicate to become water insoluble (Group III, claim 24).

Not only are groups II and III related, the modes are essentially interchangeable. Both groups describe porous combustible materials contacted with soluble silicate under conditions sufficient to cause the soluble silicate to polymerize.

Applicant respectfully submits that there is no basis for differentiating between Groups I and II, nor between Groups II and III. Applicant asserts that the modes of operation of Groups I and II are not different as both contain claims in which a silicon oxide layer is formed over a combustible substrate. Applicant asserts that Groups II and III both describe porous combustible materials contacted with soluble silicate under conditions sufficient to cause the soluble silicate to polymerize. Groups I and III are linked by the monolayer of silicon oxide of claims 20-21 (Group II) and by the overlapping scope of Groups II and III.

The scope of the claims overlap greatly among Groups I, II, and III.

Applicant respectfully requests that the restriction of April 10, 2002 be withdrawn, and all claims be examined together as filed.

Respectfully submitted,

Date: August 12, 2002

BY



Karen M. Slimak, Applicant  
(703) 644-0991